

G60 Serial High Speed Dome Camera

IMPORTANT SAFEGUARDS AND WARNINGS

Prior to installation and use of this product, the following WARNINGS should be observed.

1 Do not attempt to disassemble the camera.

To prevent electric shock, do not remove screws or covers.

There are no user-serviceable parts inside.

Ask a qualified service personnel for servicing.

2 Handle the camera with care.

Do not abuse the camera. Avoid striking, shaking, etc. The camera could be damaged by improper handling or storage.

3 Do not expose the camera to rain or moisture, nor try to operate it in wet areas.

This product is designed for indoor use or locations where it is protected from rain and moisture.

Turn the power off immediately and ask a qualified service personnel for servicing.

Moisture can damage the camera and also create the danger of electric shock.

4 Do not use strong or abrasive detergents when cleaning the camera body.

Use a dry cloth to clean the camera when it is dirty.

When the dirt is hard to remove, use a mild detergent and wipe gently. Care should be taken not to scratch the

dome when wiping it.

Afterwards, wipe off the remained part of the detergent in it with a dry cloth.

5 Never face the camera towards the sun.

Do not aim the camera at bright objects. Whether the camera is in use or not, never aim it at the sun or other extremely bright objects. Otherwise, blooming or smear maybe caused.

6 Never face the camera towards a place exposed to light sources for a long time.

If light sources such as spot light cause burn-in on the display screen, part of image may discolor due to deterioration of color filter in CCD when changing aim of the camera etc.

7 The outdoor dome camera power source is AC230 V

This camera is designed for mounting on the ceiling or wall. Using this camera installed upside down, for example, mounted on the floor, may cause malfunction.

8 Do not operate the camera beyond the specified temperature, humidity or power source ratings.

Do not use the camera in an extreme environment where high temperature or high humidity exists. Do not place near heat sources such as radiators, stoves or other units that produce heat.

Use the camera under conditions where temperature is between -10°C - $+50^{\circ}\text{C}$ (14°F - 122°F) [Recommended temperature: $+40^{\circ}\text{C}$ (104°F)], and humidity is below 90 %. The input power source is AC 230V.

9 Do not install the camera near the air out-let of an air conditioner.

The lens may become cloudy due to condensation if the camera is used under the following conditions.

- Rapid temperature fluctuations by switching the air conditioner on and off.
- Rapid temperature fluctuations due to frequent door opening and closing.
- Use in an environment where eyeglasses become foggy.
- Use in a room filled with cigarette smoke or dust.

If the lens becomes cloudy due to condensation, remove the dome cover and wipe all moist surfaces with a soft cloth.

Burn-in of an image may be caused on the fluorescent screen of CRT.

The product and/or manual may bear the following marks:



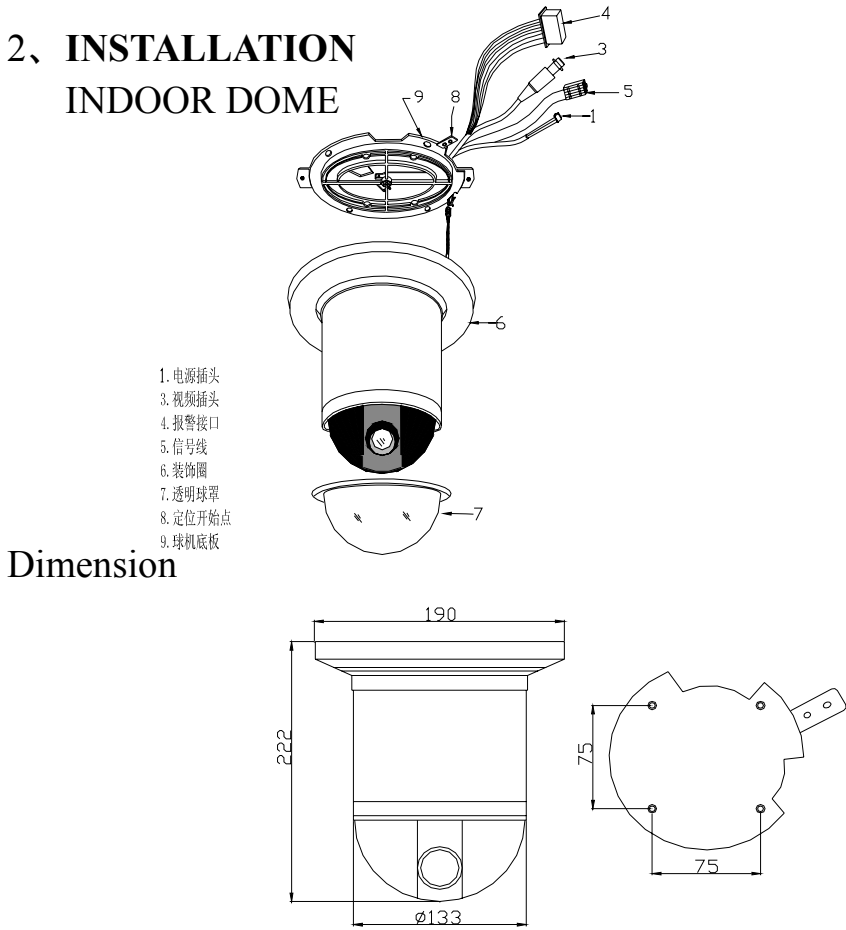
This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.



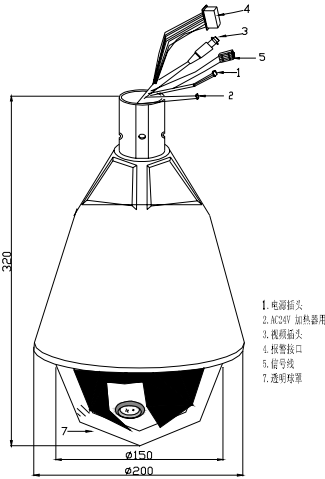
This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.

2、INSTALLATION

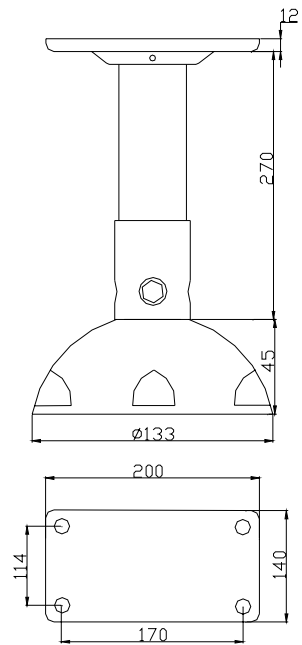
INDOOR DOME



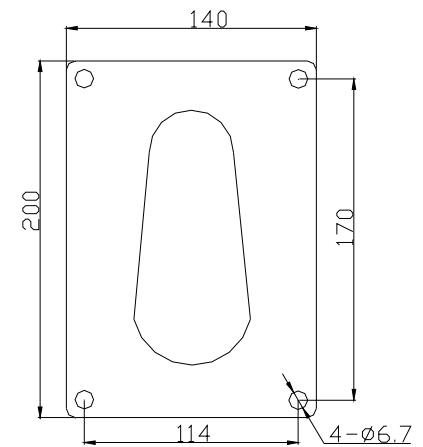
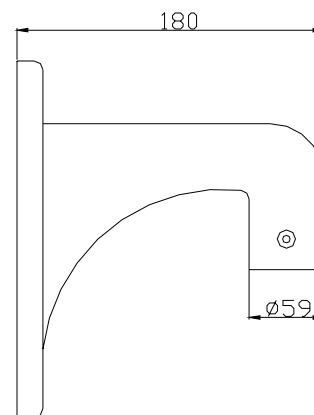
OUTDOOR DOME



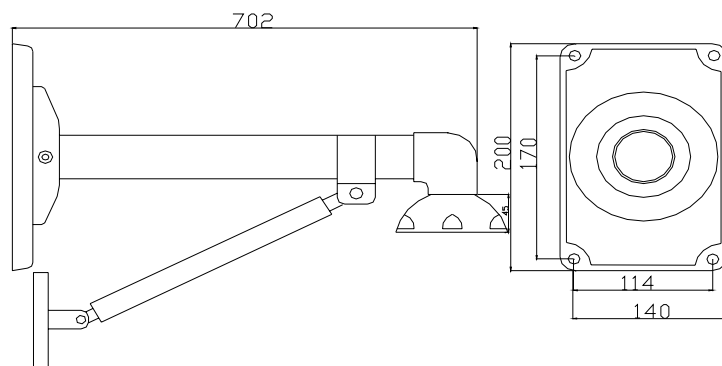
INDOOR BRACKET CEILING MOUNT



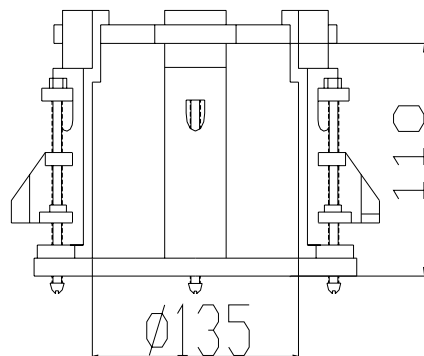
WALL MOUNT



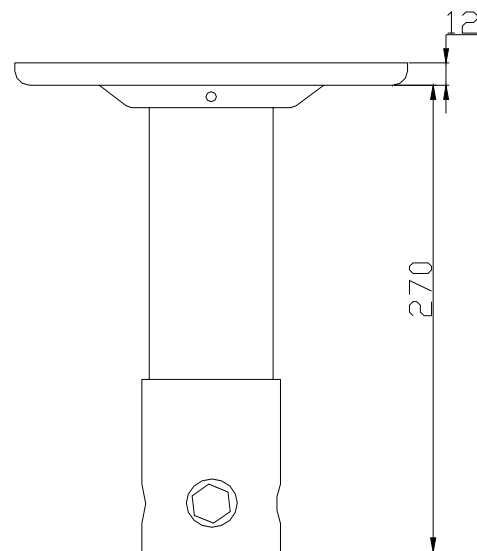
WALL MOUNT



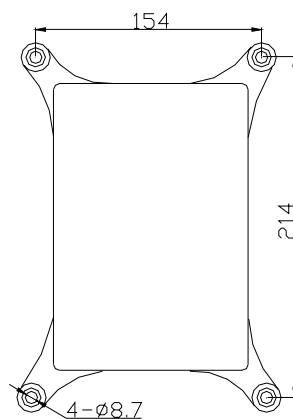
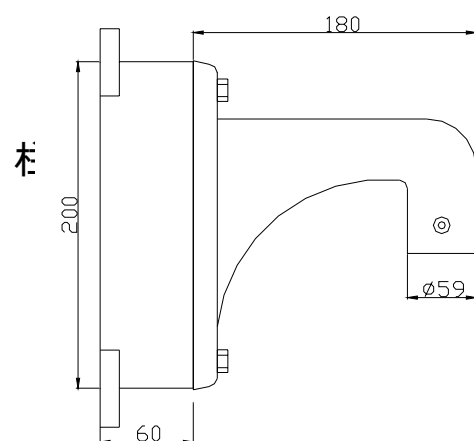
EMBEDDED MOUNT



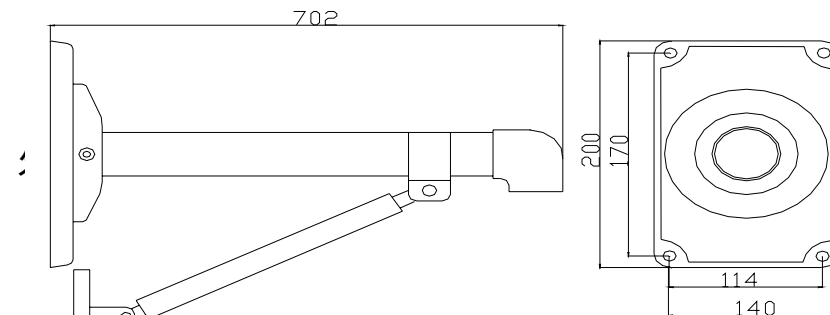
CEILING MOUNT



OUTDOOR WALL MOUNT WITH POWER BOX



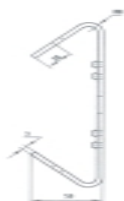
Wall MOUNT



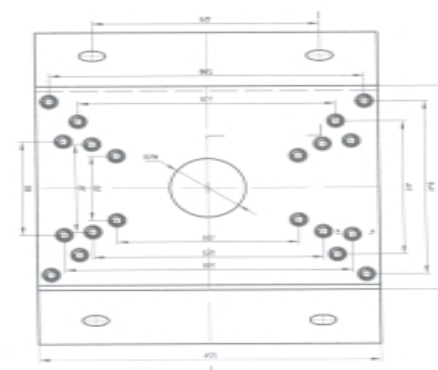
Technical drawing of a rectangular plate with a central hole. The drawing includes the following dimensions and features:

- Overall width: 200
- Overall height: 150
- Central hole diameter: $\varnothing 40$
- Distance from top edge to center of hole: 75
- Distance from bottom edge to center of hole: 75
- Distance from left edge to center of hole: 100
- Distance from right edge to center of hole: 100
- Four corner holes, each with a diameter of $\varnothing 10$.
- Four small circular features, each with a diameter of $\varnothing 5$, located near the center of each long edge.

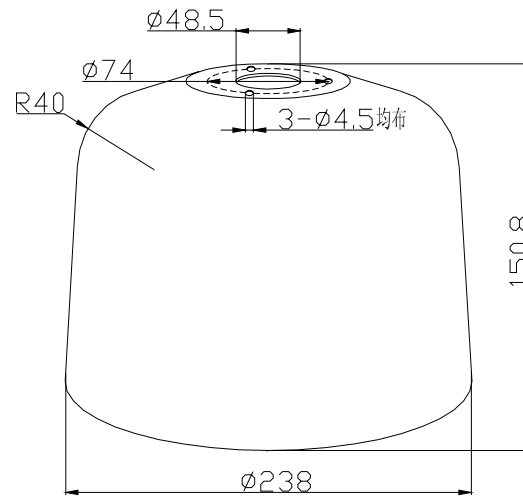
WALL MOUNT BRACKET



This diagram illustrates the assembly of the power supply unit. It shows a separate mounting bracket with two screws on the left, a fan housing in the center, and the main power supply unit on the right. The power supply unit has a label with the Chinese characters "电源" (Power) and "接线板" (Terminal Block). Dashed lines indicate the alignment and connection points for the fan housing and the mounting bracket to the power supply unit.

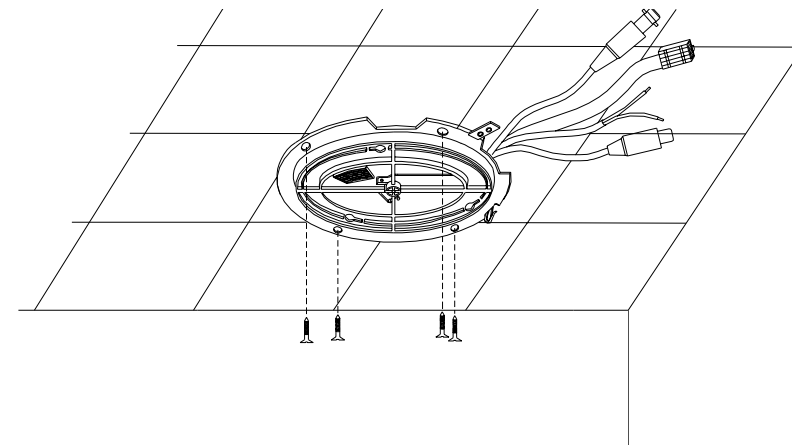
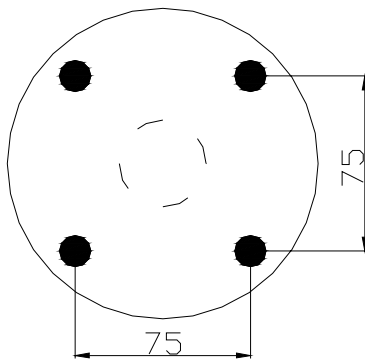


Technical drawing of a dome-shaped structure. The top circular opening has a diameter of $\varnothing 133$. The base has a diameter of $\varnothing 220$. Three mounting brackets are shown on the top rim, each with a hole. The angle between the brackets is 120° , and the angle of the dome's profile is 60° . The text "3- $\varnothing 5$ 120° 均布" indicates three $\varnothing 5$ holes distributed at 120° intervals.

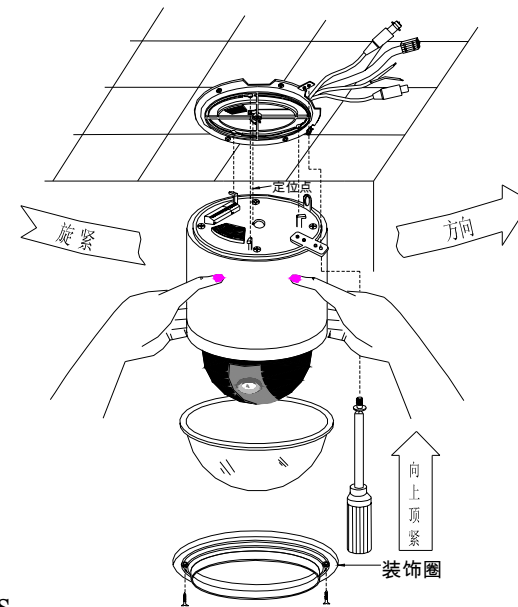


2.1 INDOOR SURFACE MOUNT

1. Decide the mount position on the ceiling
Drill 4 holes on firm ceiling for M4 screws
2. Mount the mount base on the ceiling with 4-M4 screws



3. Install the P/T/Z Module in the mount base with clock direction.

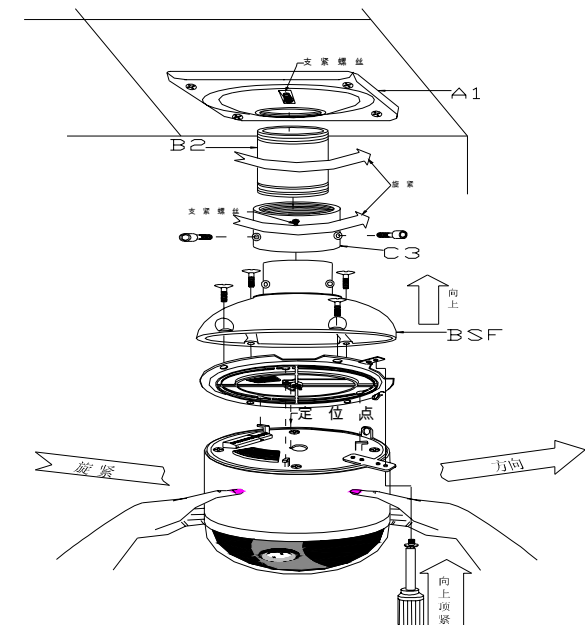


2.2 INDOOR CEILING MOUNT

1 Drill four holes on firm ceiling for M6 expansion bolts with heavy-duty electrical drill . Mount the base of ceiling bracket with 4nuts to the 4 expansion bolts on the ceiling

2 Pull power ,RS485 and video cables the ceiling bracket base form the side concave cut.

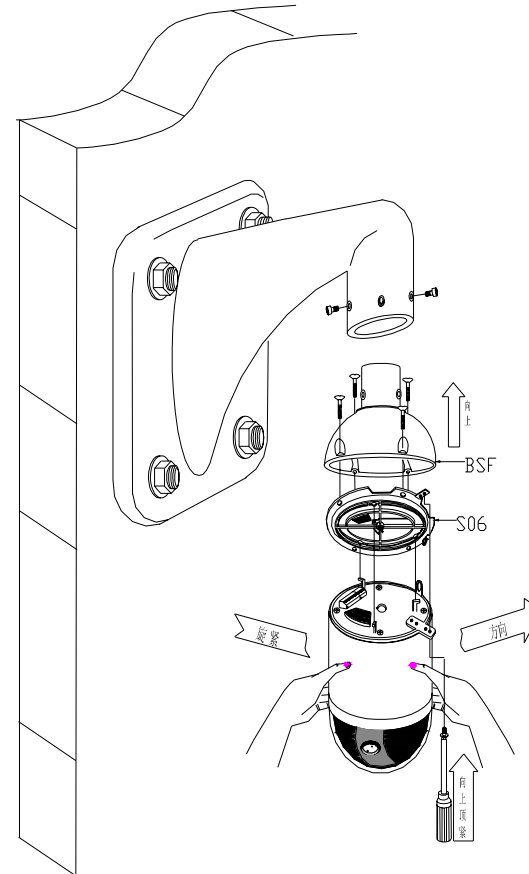
3 Install the P/T/Z module in the mount base with right clock direction



2.3 INDOOR WALL MOUNT

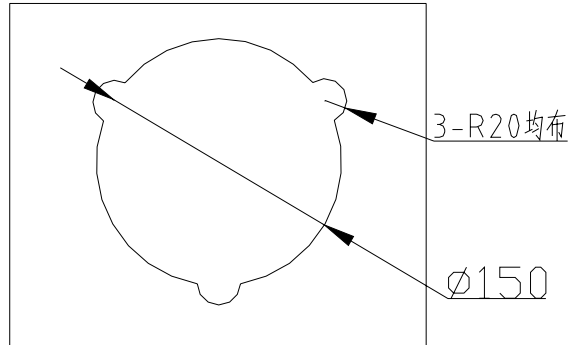
1 Drill 4 holes on firm wall for M6 expansion bolts with heavy-duty electrical drill . Push M6 expansion bolts into the holes.

2 Install the P/T/Z module in the mount base in the clock direction

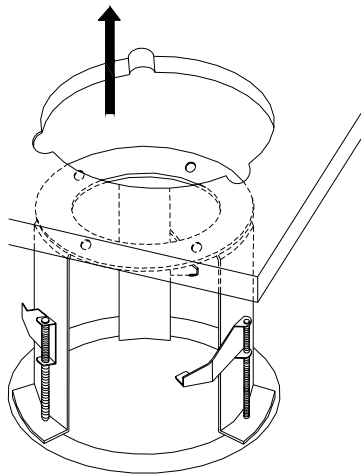


2.4 INDOOR EMBEDDED MOUNT :

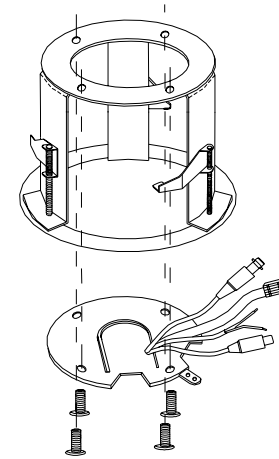
1.Cut a hole as following in the false ceiling



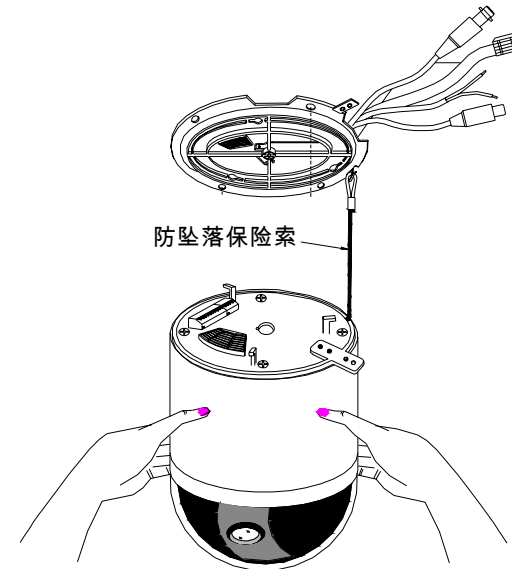
3.Fix the embedded bracket with the supplied
3 screws



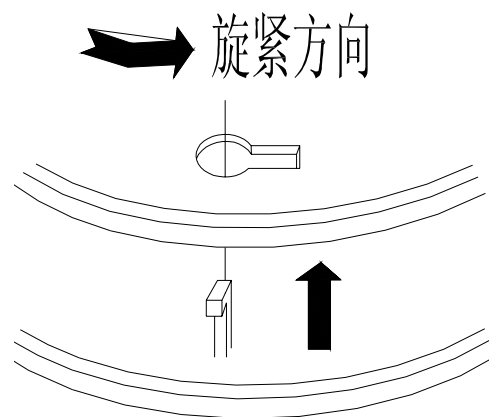
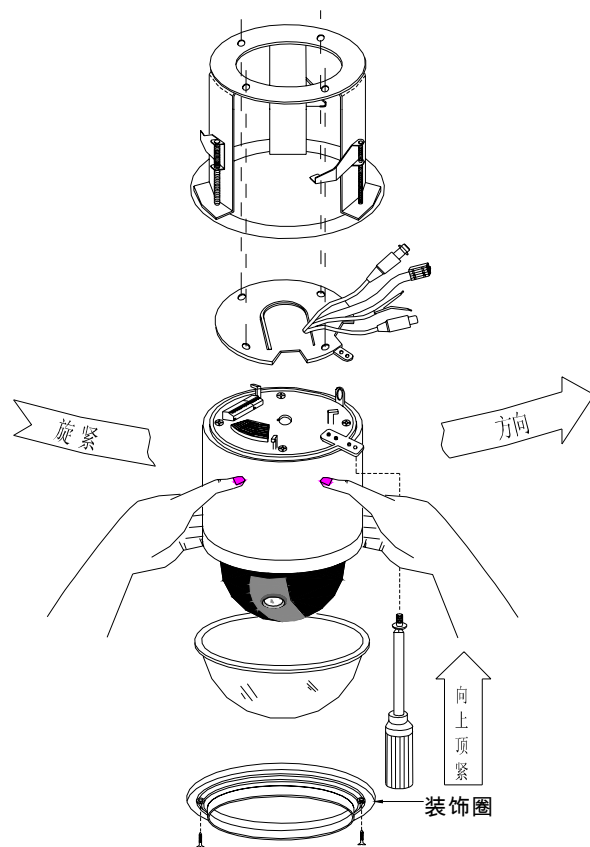
2.Mount the embedded bracket on the false ceiling



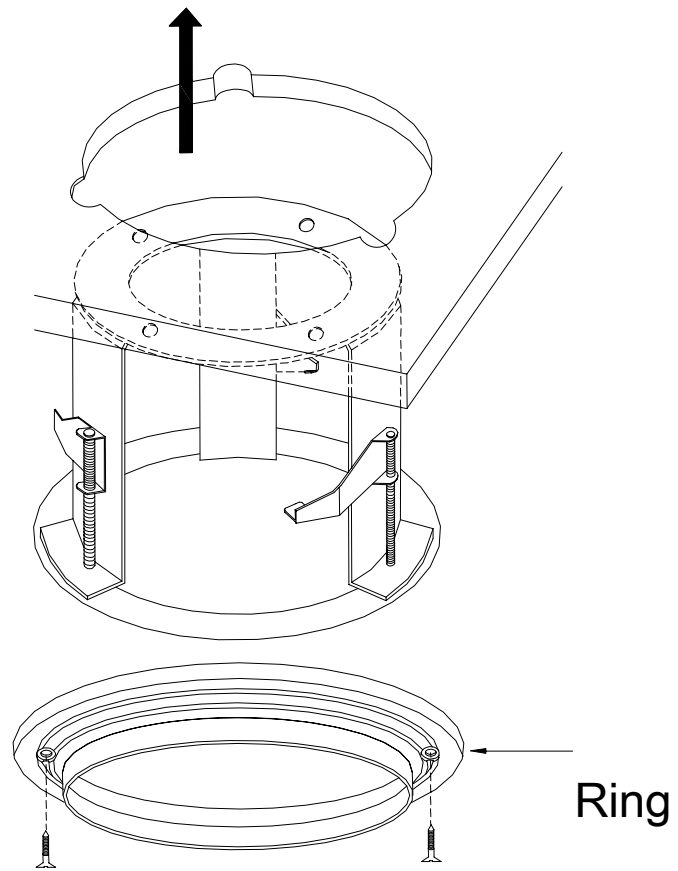
4.Mount the secure line to the mount base



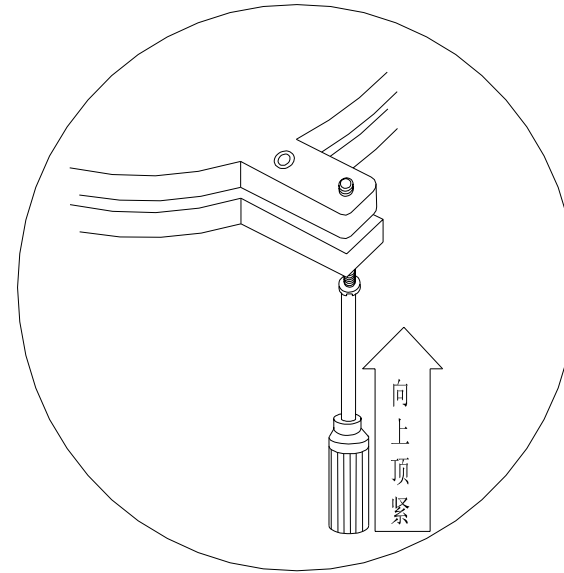
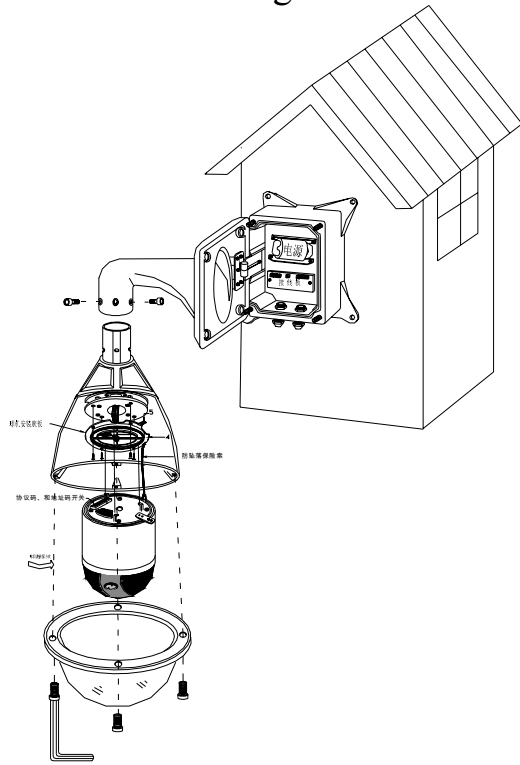
- 5 Install the P/T/Z mount in the mount
Base with the clock direction



6. Mount the decorocting ring with 2 screws

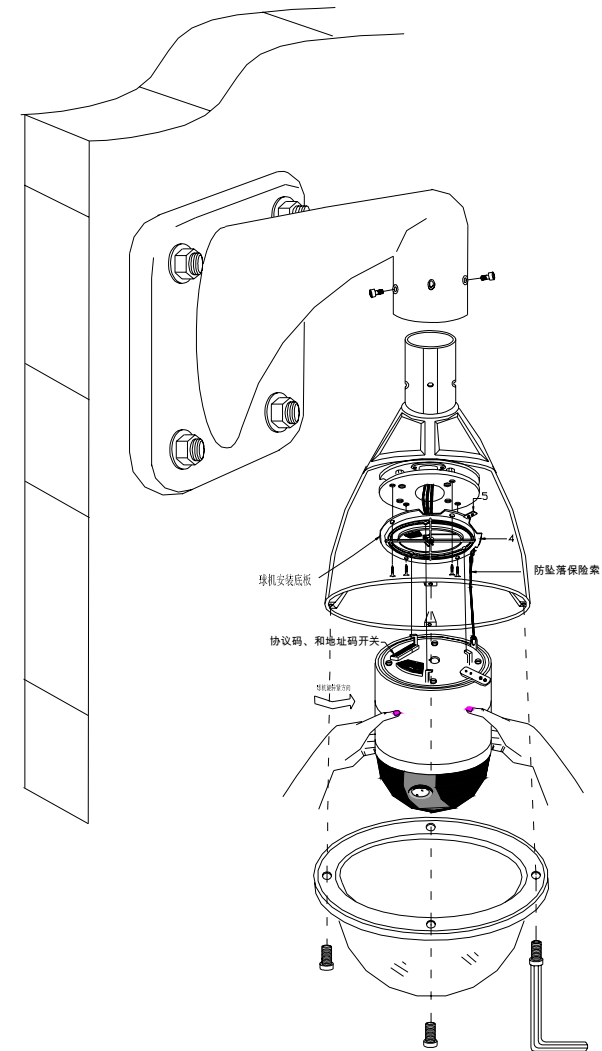
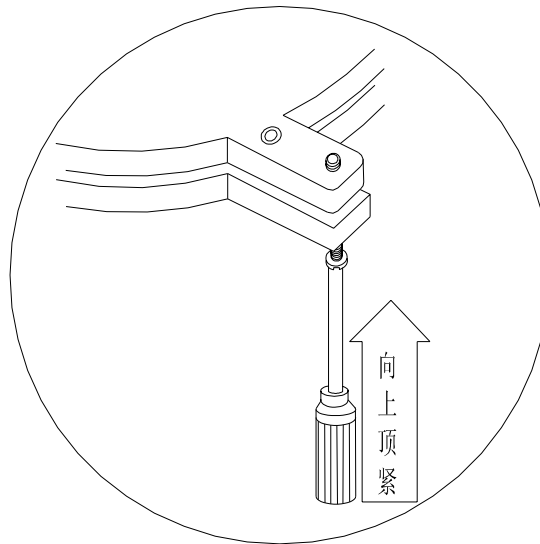


- 1 Mount the power box on the confirm wall
2. Pull power, RS485 and video cables through the wall bracket
- 3.Connect all the cable in the power box
- 4.Mount the wall bracket on the power box with 4 nuts
- 5.Tigten the screw as following



A2WITHOUT POWER BOX

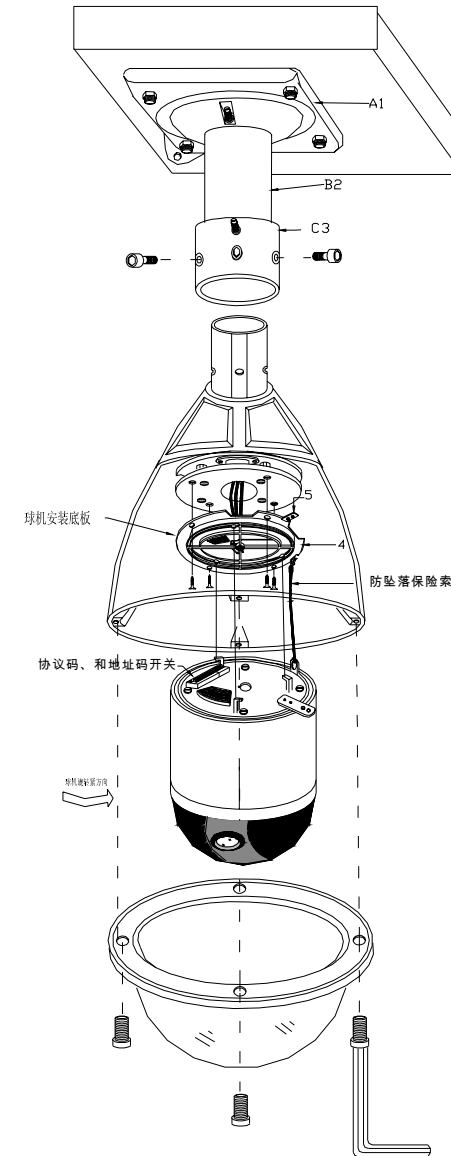
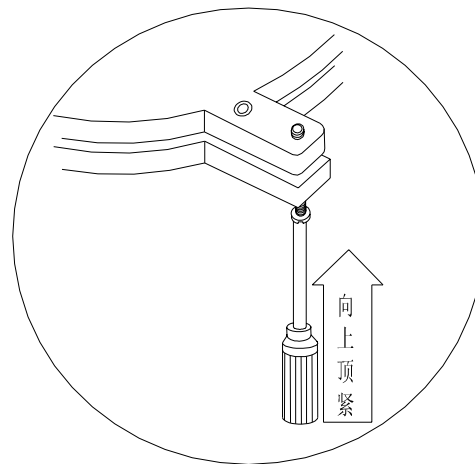
- 1 Mount the wall bracket on the confirm wall
2. Pull all the RS485 ,video and power cables through the wall bracket
- 3.Tigten the screw as following



2.5 OUTDOOR CEILING MOUNT

B1 WITHOUT POWER BOX

1. Mount the ceiling bracket on the confirm ceiling
2. Pull all video ,RS485 and power cables through the ceiling bracket
3. Installate the P/T/Z module in the outdoor housing with the clock direction
4. Tighten the screw as following



B2 with power box

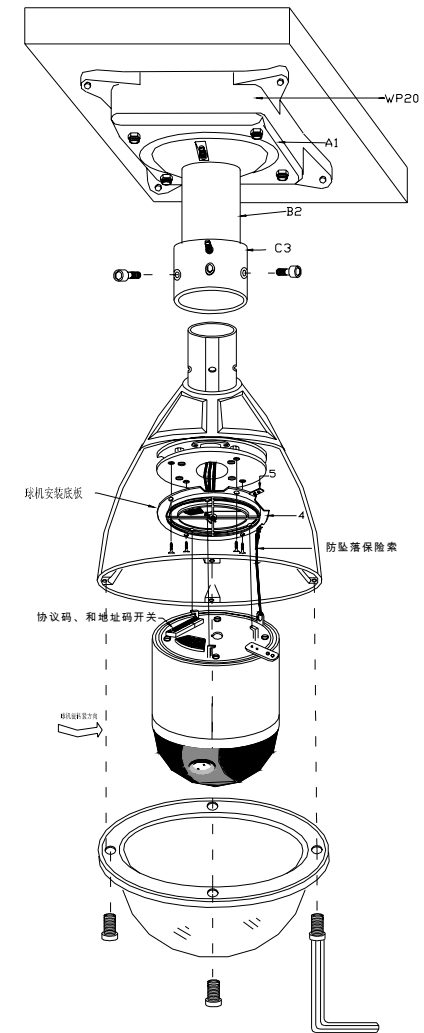
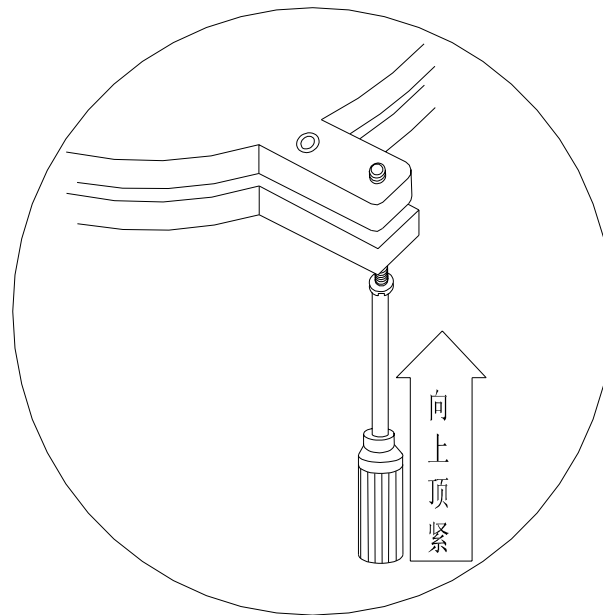
1 Mount the power box on the confirm ceiling

2. Mount the ceiling bracket on the power box

3. Pull the video ,RS485 and power cables through the ceiling bracket

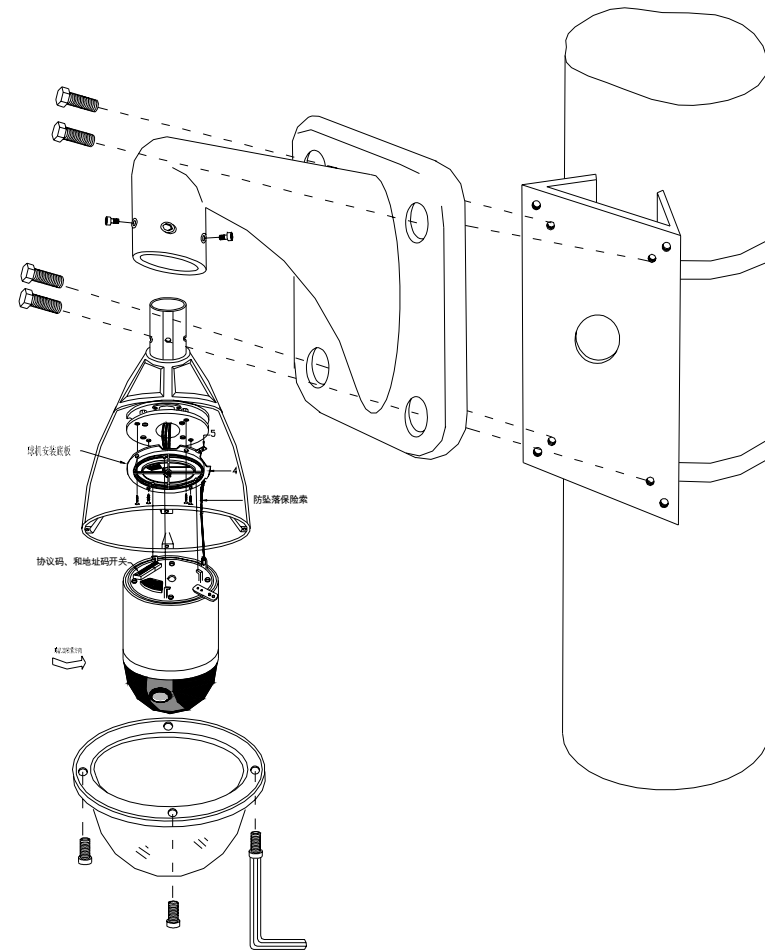
4. Install the P/T/Z module in the outdoor housing with right clock direction

5. Tighten the screw as following

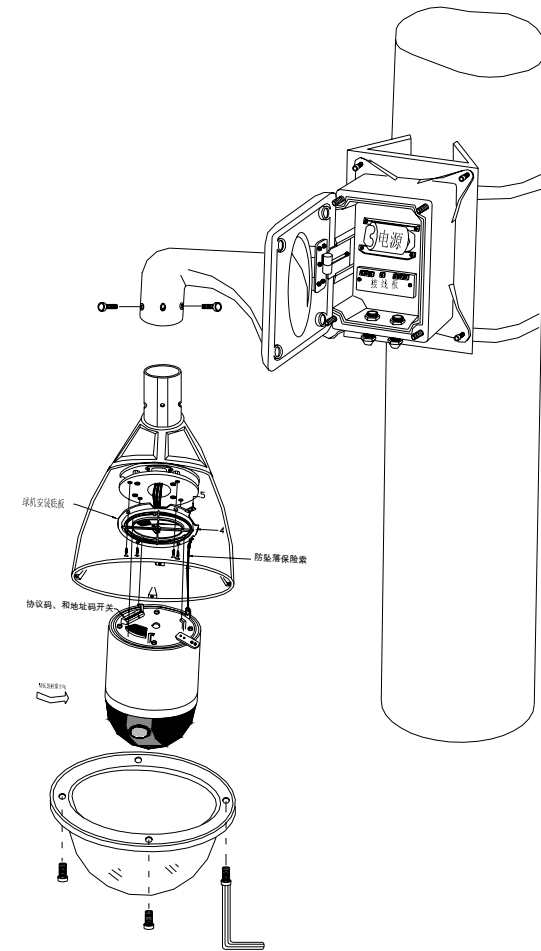


OUTDOOR POLE MOUNT

without power box mounting as following

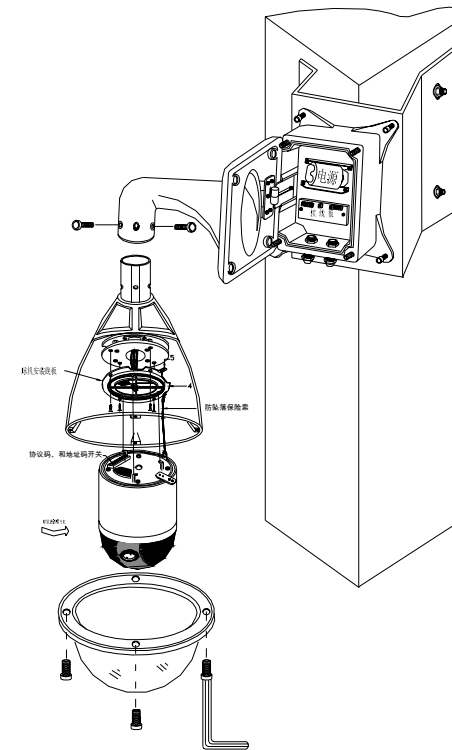


OUTDOOR POLE MOUNT
with power box
mounting as following



CORNER MOUNT WITHOUT POWER BOX

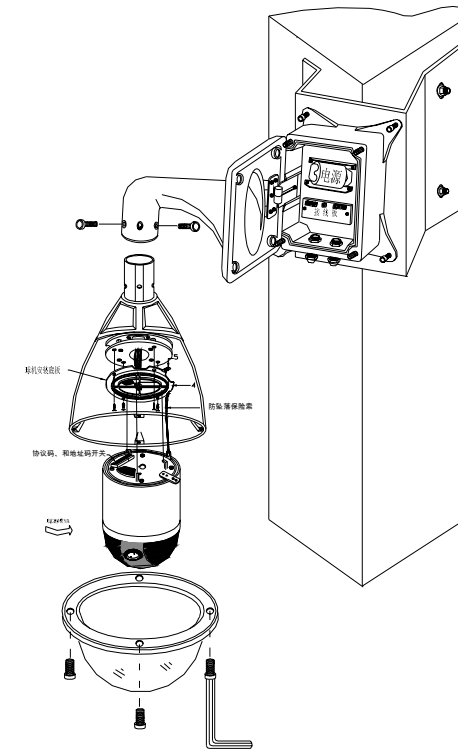
1. Mount the corner bracket on the corner of wall
2. Pull all the video ,RS485 and power cable the the wall bracket
3. Mount the wall bracket an the corner plate



Corner wall mount

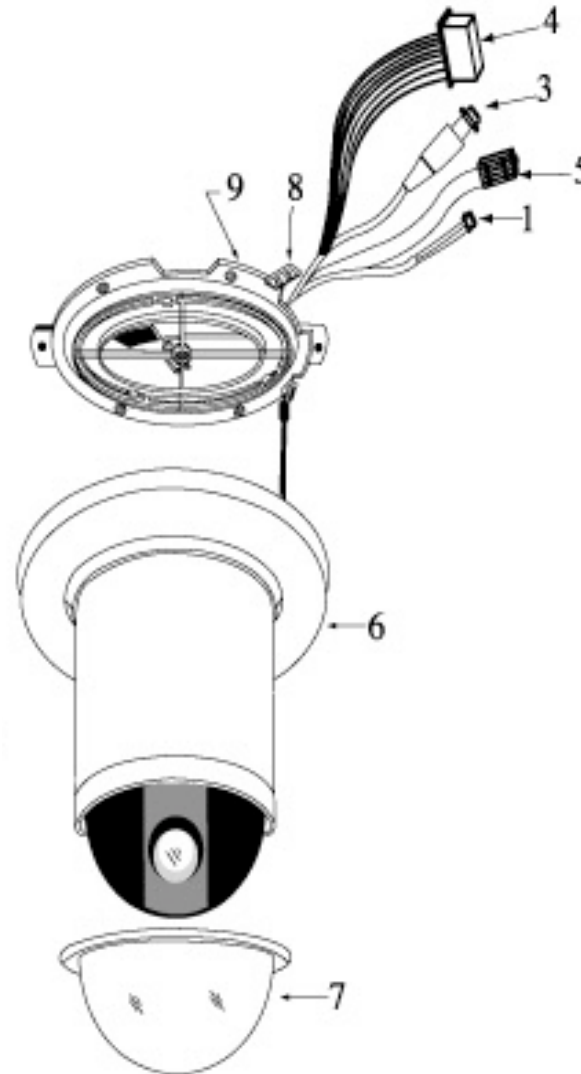
With power box

- 1 mount the corner bracket on the corner of wall
- 2 mount the power box on the corner plate
- 3 pull the video ,RS485 and power cable through the wall bracket
- 4 mount the wall bracket on the power box

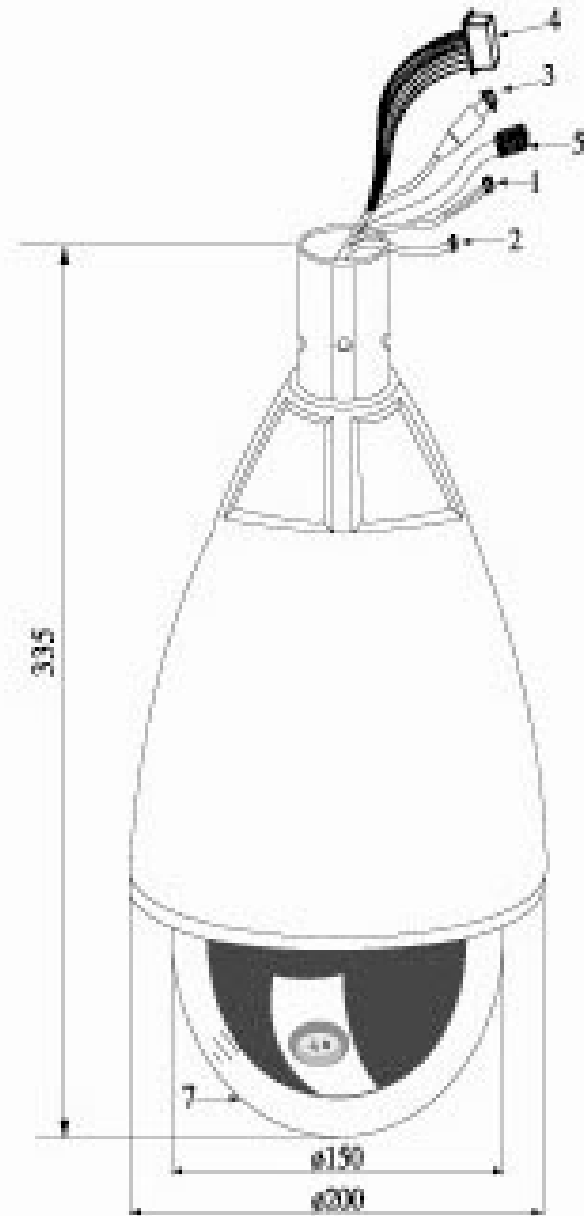


3.3 Connection

- 1. AC24V Power Input
- 3. Video Output
- 4. Alarm
- 5. RS485 data
- 6. Plastic Ring
- 7. Speed Dome
- 8. Plastic Ring
- 9. Mounting Base



1. AC24V Power Input
2. AC24 Heater & Fan AC24v input
3. Video Output
4. Alarm
5. RS485 data
7. Acrylic dome

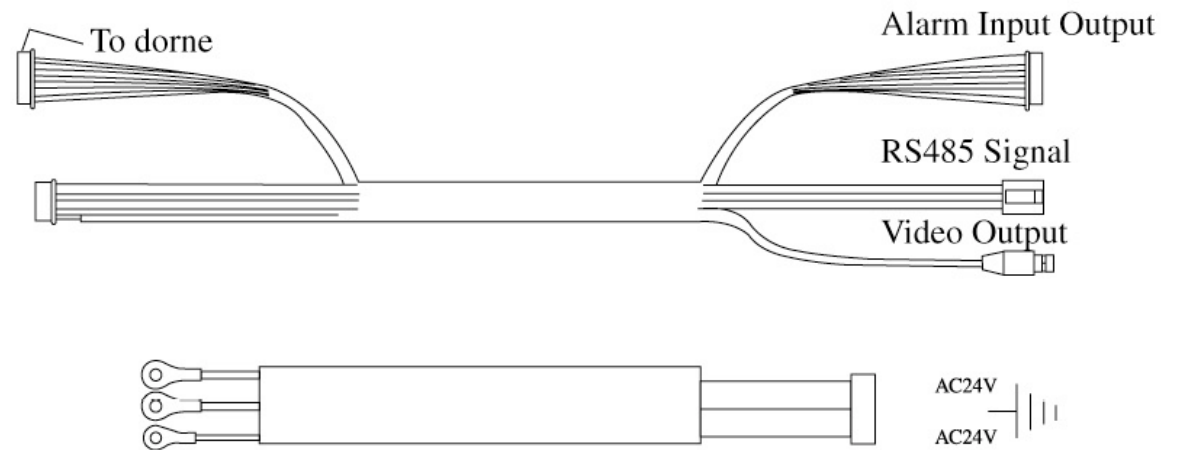


ALARM INPUT

red	alarm 1
orange	alarm 2
yellow	alarm 3
green	alarm 4
black	alarm COM

ALARM OUTPUT

brown	NC	normal close
white	COM	normal com
blue	NO	normal open



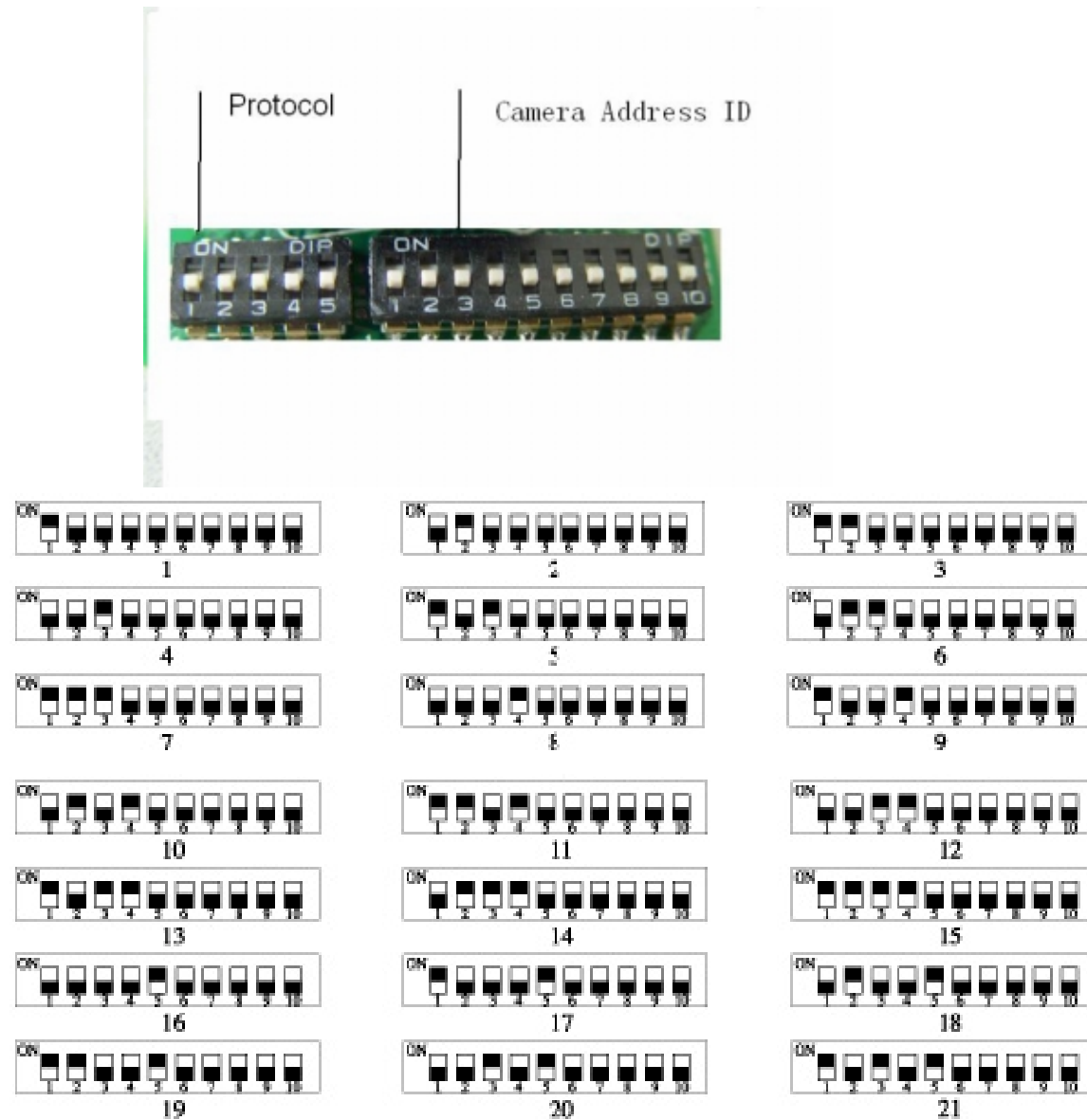
n

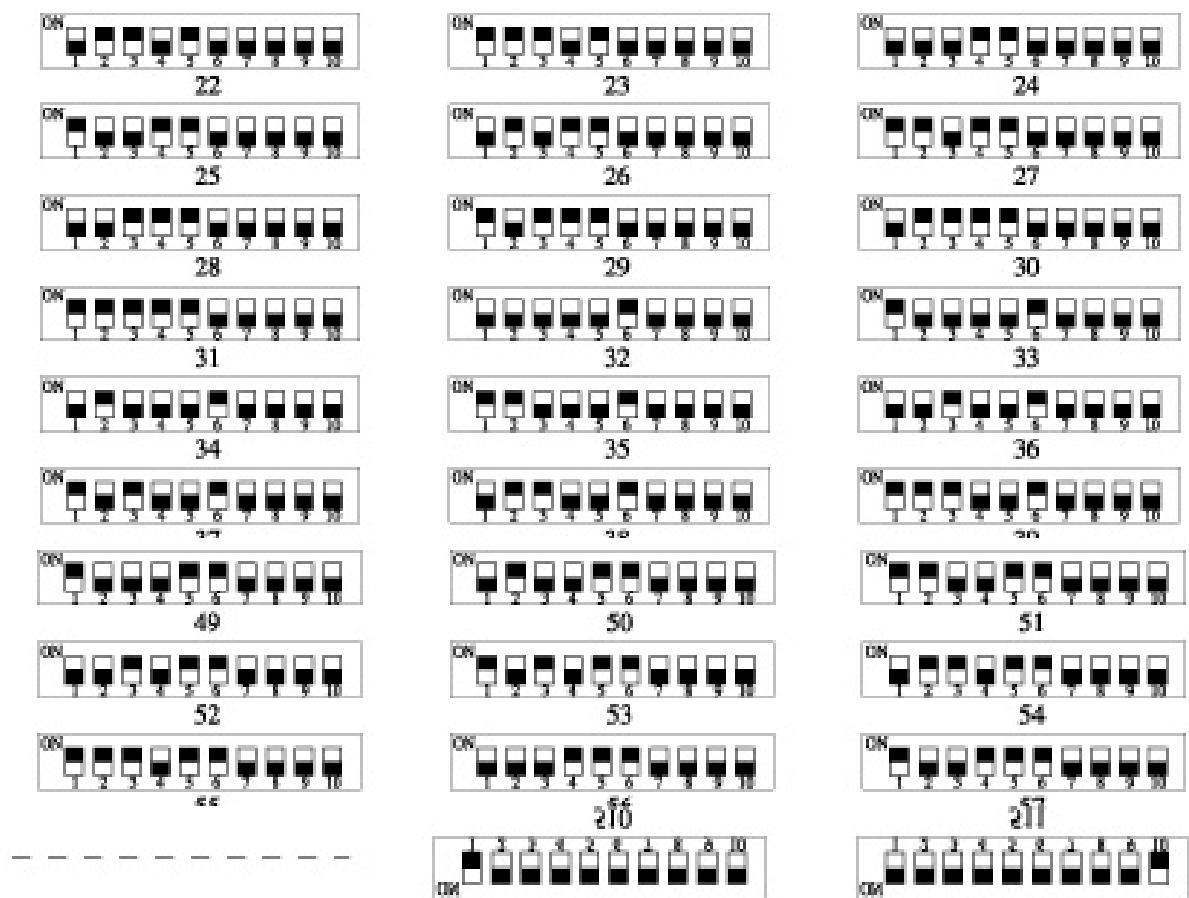
when powered on , the dome camera performs a self-check (including one panning , tilting , zooming and focusing operation)

3.4 Camera Address and protocol ID setting

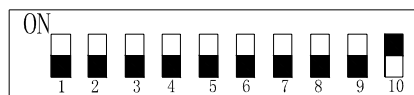


Address ID Setting





The NO.10 ID code should be set to “ON” for the last camera connected

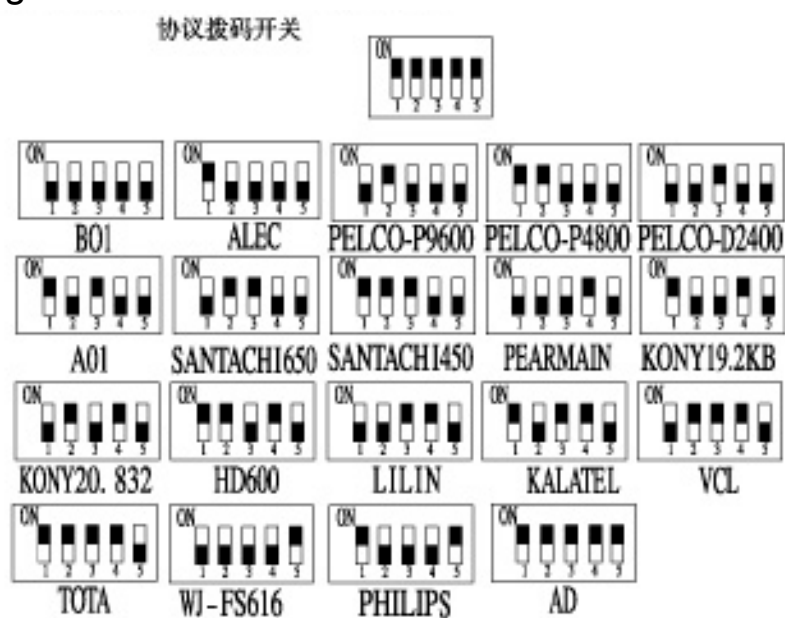


Protocol setting

Protocol of this speed dome can be set as following

Note: all setting must be operated after power off

Protocol setting



Pelco is the trade mark of Pelco Corporation

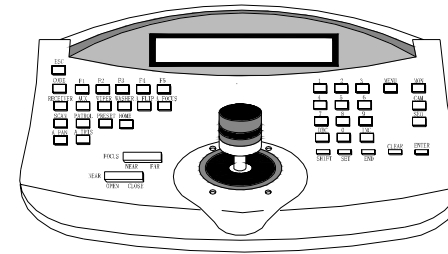
LED INDICATION

There are 2 LED(green , red)

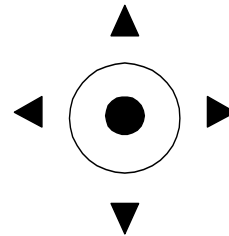
Red: on----power on

Green: on---RS485 connected OK

Flashing ---the RS485 signal from controller OK



1. pan/tilt function



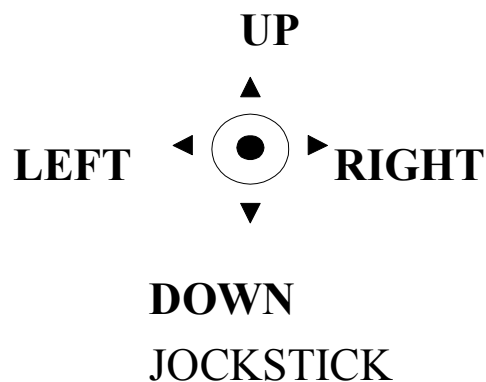
2.Zoom lens function

2.1 Zoom in and zoom out

Zoom in : to press [TELE]

Zoom out : to press [WIDE]

INDEX FOR ALL MENU



Menu display:

[CALL] +[8]+[ENTER]

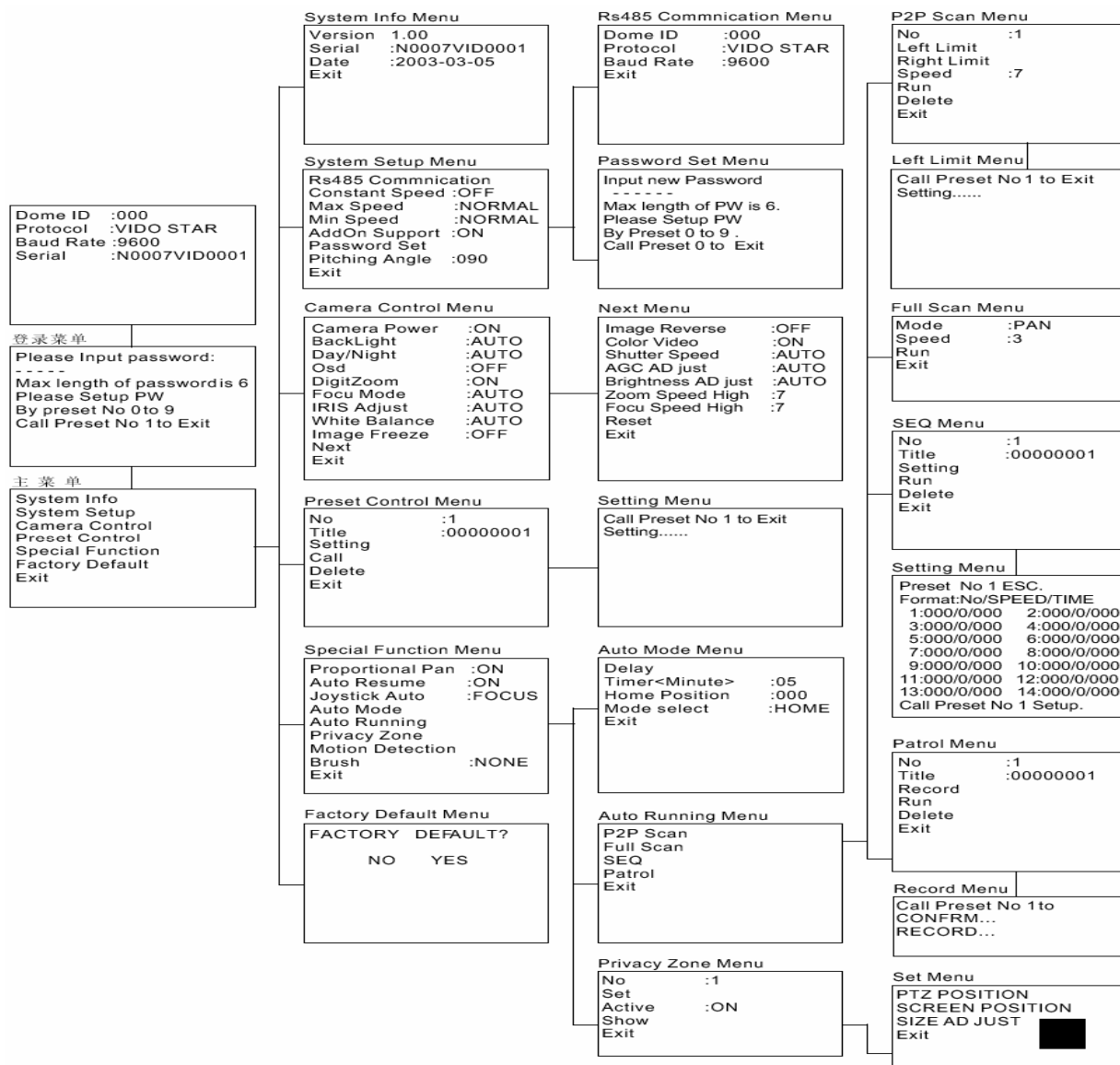
menu exit:

[PRESET] +[8]+[ENTER]

move joystick up or down to select

move joystick right to confirm

move joystick left to exit



6 Menu Setting

After powered on , the speed dome will self-check. The monitor will display as following (fig6-0-0):

Dome ID	: 000
Protocol	: B01
Baud Rate	: 9600
Serial	: XXXXXXXX

The information will disappear after the self-check finished

Enter menu :[call]+[8]+[enter] (6-0-1):

The monitor display:

Input pass word :

▶ - - - - -

Max password length is 6 Digits

Setting : preset +No (0~9)

EXIT : Call +No 1

6-0-1

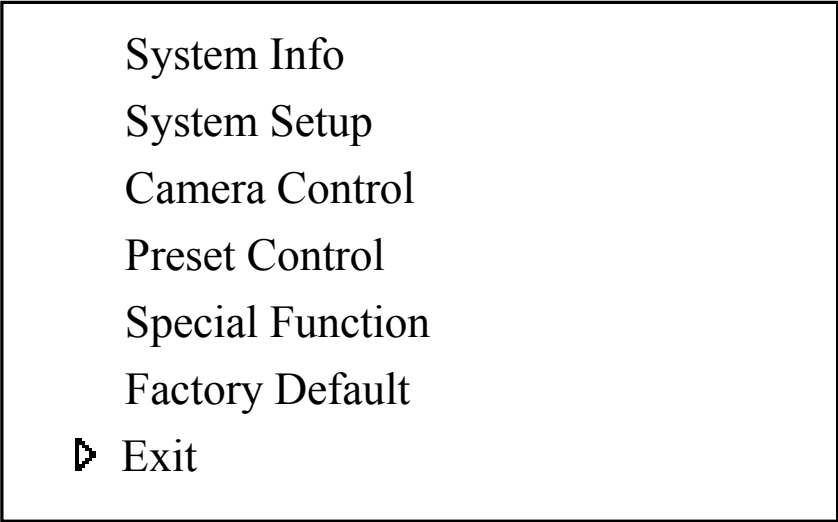
You must input password to enter menu

- ◆ **the original password is “000000”**

Move joystick to the first×, [preset]+[0]+[enter]

Means input “0”code

Move joystick to the second × repeat the last operation
After passed the password , the monitor display



- System Info
- System Setup
- Camera Control
- Preset Control
- Special Function
- Factory Default
- ▶ Exit

6-0-2

6 Move the cursor to system in for move joystick right .Enter the submenu as following

Version	1.04
Serial	: //////////1
Date	: 2003-03-05
▶ Exit	

the version of dome
serial number which has been labeled on each camera

6-1-1

This information can not be changed after factory QC passed

6.2 SYSTEM SETTING

Rs485 Communication		OFF/1/2/3/4/5/6/7/8
Constant Speed	: OFF	NORMAL/High
Max Speed	: NORMAL	NORMAL/HIGH/LOW/ON/OFF
Min Speed	: NORMAL	75-100 SELECTABLE
AddOn Support	: ON	
Password Set		
Pitching Angle	: 090	
▶ Exit		

1. move the joystick right to enter this submenu as following

Dome ID	:	000
Protocol	:	B01
Baud Rate	:	9600
▶ Exit		

(6-2-2)

2. Move the cursor to constant speed
Move joystick right to enter
Move joystick up or down to select and move right to confirm
3. same setting : Max speed ,min speed addon support
when addon support is set “ON”
YOU CAN USE CALL ADDITIONAL “50-64”
Preset positions to set the dome camera AUX function
4. Move the cursor to password set move joystick to enter the submenu

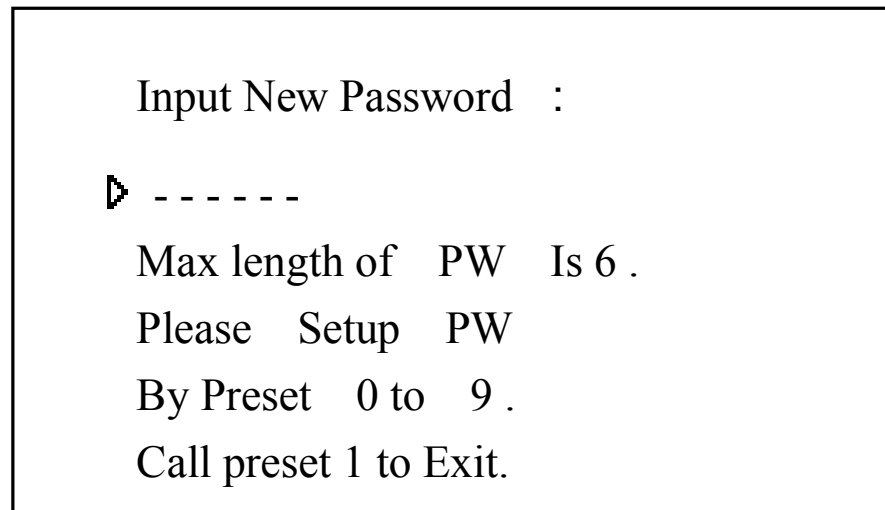


图 6-2-3

- 1) Input new code , and input the one again
- 2) New pass word OK will display after finished
- 3) [call]+[1]+[enter] to exit this submenu

6.3 camera function

Move the cursor to camera control

Move the joystick right to enter submenu

Camera Power : ON

Back Light : AUTO

Day/Night : AUTO

Osd : OFF

Digit Zoom : ON

Focus Mode : AUTO

IRIS Adjust : AUTO

White Balance : AUTO

Image Freeze : OFF

Next

 Exit

图 6-3-1

- ◆ Back Light : to set backlight ON/OFF
- ◆ Day/Night : to set day /night function on/off/auto
- ◆ Osd : to set OSD on/off
- ◆ Digit Zoom : digital zoom on/off

- ◆ Focus Mode : Near ltd /Infinity/One push/ Manu /auto/AF Low/AF normal./Auto
- ◆ IRIS Adjust : Auto/manual/priority
- ◆ White Balance : auto/indoor/outdoor/one push/ATW/manual
- ◆ Image Freeze : on/off
- ◆ Next :

Move the cursor to next and move joystick right to enter the next submenu

Image Reverse : OFF

Color Video : ON

Shutter Speed : AUTO

AGC Adjust : AUTO

Brightness Adjust : AUTO

Zoom Speed High : 7

Focus Speed High : 7

Reset

▶ Exit

图 6-3-2

- ◆ Image Reverse : ON/OFF
- ◆ Color Video : ON/OFF
- ◆ Shutter Speed : AUTO/MANUAL
- ◆ AGC Adjust : AUTO/MANUAL
- ◆ Brightness Adjust : Not use now
- ◆ Zoom Speed : 7/6/5/4/3/2/1
- ◆ Focus Speed : 7/6/5/4/3/2/1
- ◆ Reset : reset to factory setting
- ◆ Next:

6.4Preset control

Move the cursor to preset control

Move joystick right to enter the submenu

No	: 001
Title	: 00000000
Setting	
Call	
Delete	
▶ Exit	

- 1) Move the cursor to NO:
Moving the joystick up or down to change the 0-9. move joystick right to confirm
- 2) Move the cursor to title
Moving the joystick up or down to select title

NO.001
Title.....
·Setting
Call
Delete
Exit

- 3) Move the cursor to call , you can call the preset position
That has been set , if the preset position has not be set , the monitor will display
- 4) Exit

Nonentity

6-4-2

6.5 Special function

Move the cursor to special function

Move joystick right to enter submenu

The monitor will display

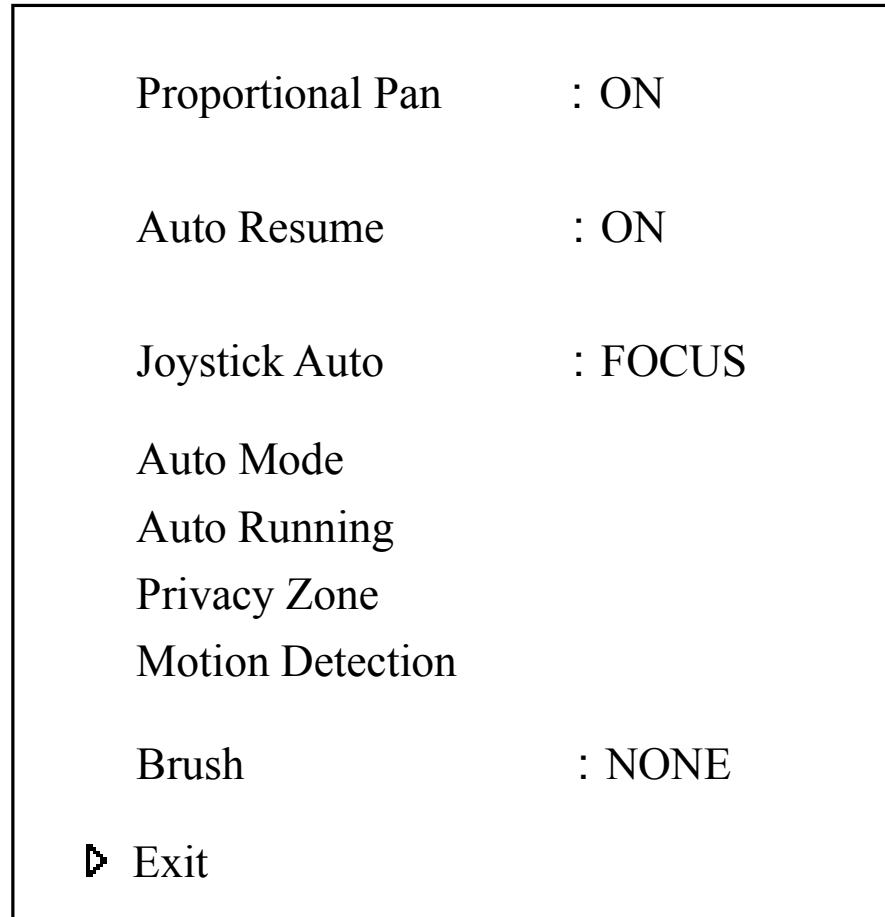


图 6-5-0

1) Proportional pan :ON/OFF

The pan speed of dong will lower to capture clear picture according to zoom in when the proportional pan is set to ON.

2) Auto resume : ON/OFF

ON: the dome will restart the situation after powered on

3) Joystick auto : focus/none /both/iris

1. **Auto mode**

Move the cursor to auto mode

Move joystick right to enter submenu

The monitor will display

Delay Timer<Minute> : 05

Home Position : 000

Mode Select : HOME

▶ Exit

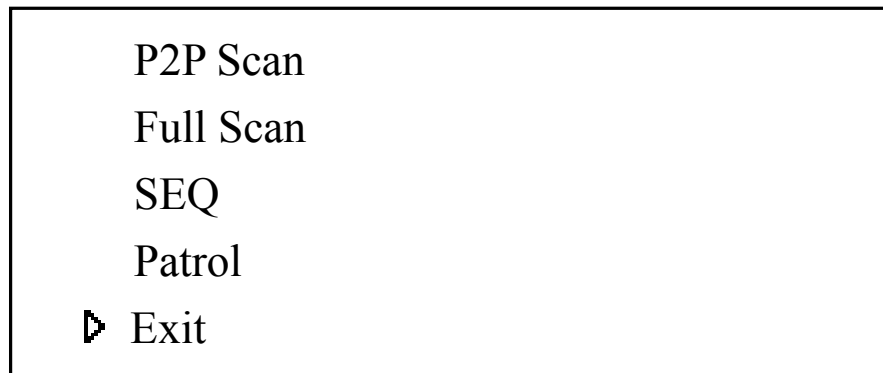
- ◆ Delay Timer : 01/02.....29/30
- ◆ Home Position : 001/002/.....079/080
- Mode Select : OFF/PATROL/SEQ
AUTO TILT/AUTO PAN
P2P SCAN/HOME/PTZ

2. Auto running(tour)

p2p scan

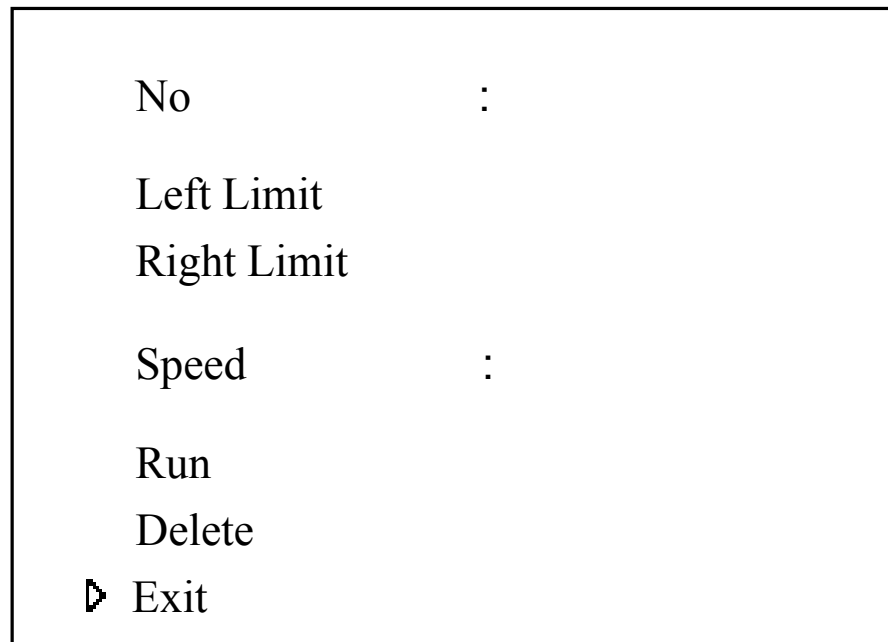
set left and right limit of the desired view area, input the order to make the camera scan between the two limits with set speed. please refer to the keyboard user manual for more details.

Move the cursor to auto running



6-5-2

1. move the cursor to p2p scan
move joystick right to enter submenu
the monitor displays:



6-5-3

- 1) No: 1/2/3/4
Move the cursor to left limit
The monitor will display

Call No 1 To save
Preset No 1 esc
Setting.....

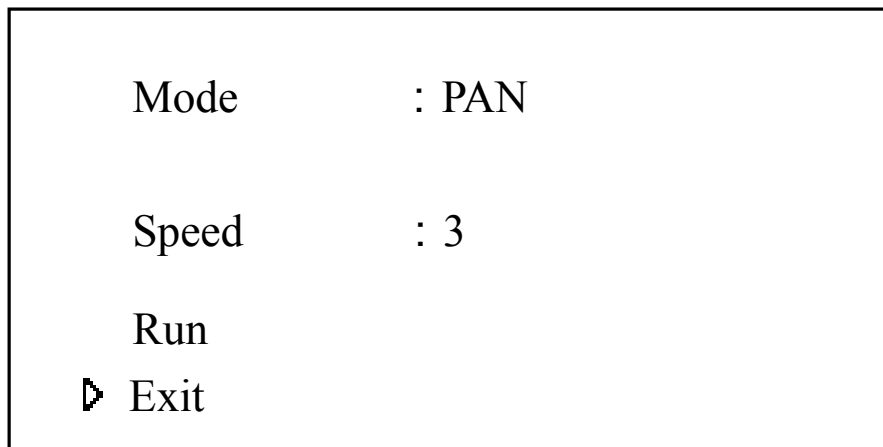
Move joystick up , down , left , right , and zoom in , zoom out to select the position you want
the [call]+[1]+[enter] to save and exit
the set the right limit

- 2) Move the cursor to setting
Move joystick right to enter ,the monitor will display:

Call No 1 To save
Preset No 1 esc
Setting.....

Now move joystick up or down and zoom in or out to the position you wanted and [call]+[1]+[enter] to save
and exit The monitor will display

- 3) Speed : 3/2/1/8/7/6/5/4
“8” stand for high speed
“1” stand for low speed
 - 4) Move to “run” , the dome will move block between the 2 preset positions
 - 5) Delete : to delete the setting
2. full scan
move the cursor to full scan
move joystick right to enter submenu
the monitor displays:



6-5-5

mode : pan/both/tilt
speed : 3/2/1/8/7/6/5/4
run : to scan automatically

3. SEQ (AUTO TOUR)

The preset position can be programmed to be recalled in a set of sequence .this sequence can e set to let the camera scan from one position the next in a cycle at a set speed .This feature is called auto cruise.

- The camera can do auto cruise if inputting the preset position sequences into called auto cruise
- Cruise sequence and dwell time of each preset can be set
- Up to 36 presets can be memorized in each cruise tour

No	:
Title	:
Setting	
Run	
Delete	
▶ Exit	

6-5-6

NO: 1/4/3/2

Title :-----

Setting : to programme the tour

The monitor displays

Preset No 1 ESC.
Format : No/SPEED/TIME
CALL NO1 SAVE

6-5-7

4. Patrol function

Patrol (path memory function)

With this function , the camera can memorize the pan/tilt movements and lens command of the dome within 180 seconds .4 pattern routes are available . pattern memory is only applicable to the operation of pan/tilt and lens by OSD menu.

Move the cursor to patrol

Move the joystick right to enter submenu

The monitor displays

No :

Title :

Record

Run

Delete

▶ Exit

6-5-8

No : 1/4/3/2

Title :-----

Record : to programe patrol routing

The monitor will display

Call Preset No 1 To
CONFIRM...
▶ RECORD...

6-5-9

after setting , [call]+[1]+[enter]

to save and exit

the monitor will display

WAITING

RECORD OK

RUN: to run to patrol / tour you set

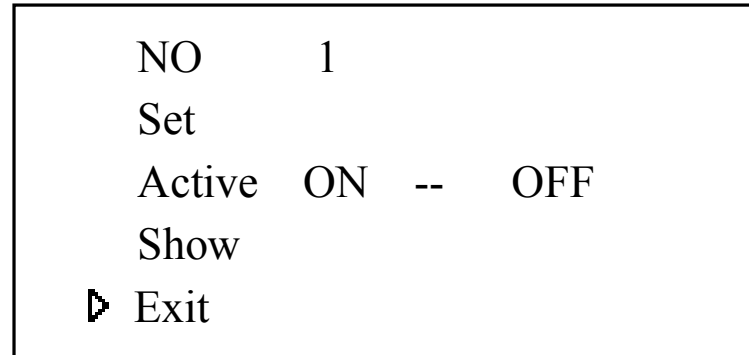
3. Privacy zone(Privacy masking setting)

When there is a house or even a window within the camera frame ,it is possible to make the area so that it will not

appear on the monitor to prior to protect privacy .up to 8 masks of arbitrary size are available

Move the cursor to privacy submenu

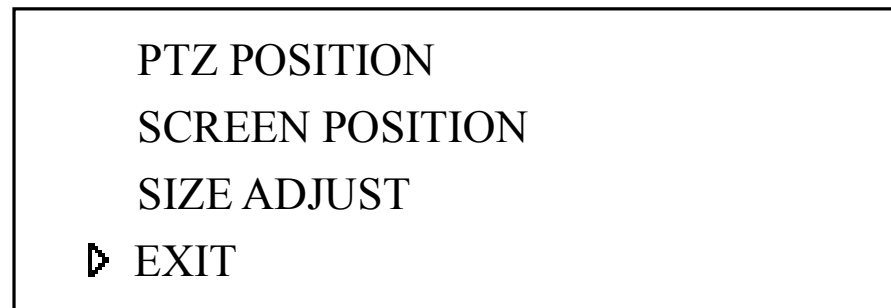
The monitor will display



No: 1/8/7/6/5/4/3/2

Set : to set the masking position

The monitor will display



ENTER PTZ POSITION

PTZ POSITION

Now you move joystick up ,down , right , left , to select the position you want
[call]+[1]+[enter] to save and exit
move the cursor to SCREEN POSITION , and enter the submenu
the monitor will display

SCREEN POSITION

Move the joystick to find the start position you want to mask [call]+[1]+[enter] to save and size adjust
Move the cursor to size adjust
Move joystick right to enter submenu
The monitor will display

SIZE ADJUST

Move joystick down or right to mask the position you want

[call]+[1]+[enter] to save and exit

Active : OFF/ON

ON : the masking will display

Show : to show the NO. x masking position

4. motion detection

now not used

5. Brush

Not used in speed dome

6. Alarm input

The monitor displays

Alarm in 1: 001

Alarm in2: 002

Alarm in 3: 003

Alarm in 4: 004

Mode : No

Output: NO

6.6 Factory default

Move the cursor to factory default

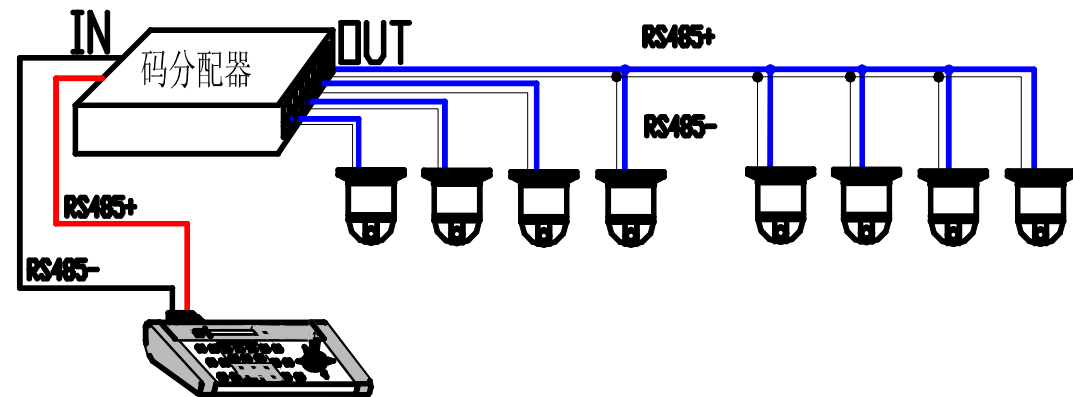
Move joystick right to enter submenu

The monitor displays

FACTORY DEFAULT
NO YES

Move joystick left to say no

Move joystick right twice to say yes



Appendix VII: Troubleshooting

Trouble	Possible Causes	Solution
No action, no video after powered up	If the red LED on the circuit connection board in the housing is not lit, causes may be: 1. The 24Vac power supply is not connected to the port of the circuit connection board or the contact is not good. 2.The municipal power supply has been cut off or the 24Vac transformer is in malfunction. If the red LED on the circuit connection board in the housing is lit, causes may be: 1. Fuse is bad or it is not installed. 2. The cable connection is not good in contact. 3. 24Vac transformer outputs too low voltage. 4.The power PCB is bad.	1. Check the power supply to see if it is connected, or confirm if the plug contact well. 2. Check to see if the municipal power supply has been cut off. Check to see if the 24Vac transformer is ok.. 1.Replace the fuse. The fuse is a 3-ampere one. 2.Check and confirm all the wire connections are correct and good in contact. 3.Use a voltmeter the check the voltage load to the dome. If the voltage is below 24 Vac, the voltage is not applicable. 4.Please contact factory or distributor for replacement of power PCB.

Self-testing and image are normal but the dome is uncontrollable.	1. The dome DIP switch setting is incorrect. 2. The two poles of the control cables are connected wrongly or the connection is open.	1. Reset the DIP switches as per the DIP switch setting chart. 2. Check the control cables and confirm the connection is correct and good in contact.
Fan does not function.	1. Wire connection of fan is not good.	1. Connect the fan wire. If the fan still does not function, contact the distributor or factory.

Vertical roll on monitor when switching between cameras.	1. Cameras are out of phase.	1. If you are wiring more than one dome to the same transformer, it is important to wire the power connector in each dome the same way. That is, the wiring from one side of the transformer must be connected to the same connector on each dome. Make sure you wire power to the outer connectors of the Terminal block and ground to the middle connector. Otherwise, you could damage the dome.
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Vague Image	1. Manual focus has been set. 2. Unclean down cover.	1. Operate dome or call any preset. 2. Clean the down cover.
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